

# (CEMP) DUST & EMISSION MITIGATION MEASURES

To discharge Condition 4 of approved planning  
2023/0616 for 1 no. residential development to the  
rear of 58-60 Burton Road Carlton.

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Land to rear 58-60 Burton Road Carlton  
by Lannoy Group

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## 1.0 Introduction

The developer is required to develop and implement a Construction Environmental Management Plan (CEMP) to help ensure that construction activities are planned and managed in accordance with the environmental requirements identified in the Air Quality and Emissions Mitigation Guidance for Developers 2019, East Midlands Air Quality Network and Gedling Borough Council.

It is anticipated that the developer uses this document as the template for their own individual CEMP.

The CEMP will document the Developer's plans to ensure compliance with their legal and contractual obligations as well as implement best practice in construction environmental management.

The CEMP will be applicable to all works associated with the "Approved Scheme" including those carried out by sub-contractors and this document has been developed to avoid, minimise and mitigate against any construction effects on the environment and surrounding community.

For the purposes of this document, the working area is defined as any area where there will be a requirement for temporary or permanent works to facilitate the construction of the development. This includes areas required for access, temporary construction and temporary storage areas.

### Air Quality and Emissions Mitigation Guidance for Developers 2019

The development is classed as Small under the guidance; -

Smaller development proposals may not in themselves create an additional air quality problem but will add to local air pollution and potentially introduce more people likely to be exposed to existing levels of poor air quality. An assessment of the likelihood of introducing additional exposure will be determined using the following criteria:

- The proposal is adjacent to or within an AQMA;
- The proposal is one of the Land Use types:
  - C1 to C3;
  - C4 (Homes of Multiple Occupation);

Dwelling Houses (C3)	Dwellings for individuals, families or not more than six people in a single household.	>50 units
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This guidance assumes that small and medium schemes should not have a significant impact on air quality if the appropriate Type 1 and 2 mitigation, as outlined, is incorporated into development proposals.

## Summary of the potential air pollution mitigation

<b>Type 1</b>	<ul style="list-style-type: none"> <li>• The adoption of an agreed protocol to control emissions from construction sites</li> <li>• Provision of Electric Vehicle Recharging</li> <li>• Low NOx boilers or consideration of alternative heat sources</li> </ul>
Practicable mitigation measures supported by the NPPF; <b>Table 7</b>	
<b>Type 2</b>	<p>Active travel (cycling/walking) infrastructure including, but not limited to:</p> <ul style="list-style-type: none"> <li>• Developing cycle routes or pedestrianised areas and infrastructure to support low emission modes of transport;</li> <li>• improved facilities to encourage cycling or other non-motorised travel (shower facilities, secure cycle storage etc); and signage</li> </ul>

All development should consider the effect construction operations will have on emissions and as such mitigation should be considered

The proposed mitigation will be outline in Section 2

## 2.0 Construction Phase - Emissions Mitigation and Assessment

### Scale of development

The Scale of development is small based on the site activity and potential dust generation: -

Activity	Criteria	Scale
Demolition	<20,000m <sup>3</sup> total volume of structure working at <10m above ground.	Small
	20,000m <sup>3</sup> -50,000m <sup>3</sup> total volume of structure working at 10m-20m above ground.	Medium
	>50,000m <sup>3</sup> total volume of structure working >20m above ground.	Large
Earthworks	<2,500m <sup>2</sup> total site area using <5 heavy moving vehicles.	Small
	2,500m <sup>2</sup> -10,000m <sup>2</sup> total site area, 5-10 heavy moving vehicles.	Medium
	>10,000m <sup>2</sup> total site area >10 heavy moving vehicles.	Large
Construction	<25,000m <sup>3</sup> construction material. <10 dwellings.	Small
	25,000m <sup>3</sup> -100,000m <sup>3</sup> construction material. 10-50 dwellings.	Medium
	>100,000m <sup>3</sup> construction material. >50 dwellings.	Large
Trackout	<10 HDV (>3.5t) outward movements off-site in any one day.	Small
	10-50 HDV (>3.5t) outward movements in any one day.	Medium
	>50 HDV (>3.5t) outward movements in any one day.	Large

### Sensitive Receptors

The sensitive receptor will be Medium

High Sensitivity	Medium Sensitivity	Low Sensitivity
Hospitals and clinics	Schools	Farms
Hi-Tech industries	Residential Areas	Light & Heavy Industry
Painting & furnishing	Food Retailers	Outdoor Storage
Food Processing	Greenhouses & Nurseries	
	Horticultural Land	
	Offices	

### Dust impact

The dust impact will be Large

Sensitive Receptors	Number of Total Receptors	Distance from Source (m)		
		<20	<50	<100
High	>50	Large	Large	Medium
	10-50	Large	Medium	Small
	1-10	Medium	Small	Small
Medium	>1	Medium	Small	Small
Low	>1	Small	Small	Small



20m dust impact zone

## **The development Site**

The proposed residential development is to construct 1 dwellings, with access, parking and associated landscaping.

## **Duration and working hours**

The duration of the build is approximately 28 weeks

The Site operation hours will be 7.30am-5pm (with 8am start for machinery), Monday – Saturday.

These hours relate to noisy works which are audible beyond the site boundary.

No plant, machinery or equipment associated with such works shall be started up or operational on the development site outside of these hours.

In order to maintain these working hours, contractor(s) will require a period of 30 minutes before and at the end of the working shift to start up and close down the works activities.

## **Security and storage**

Heras fencing or hoarding will be placed around the site prior to the commencement of construction works. This will be monitored and maintained on a regular basis to ensure a safe working environment and prevent risk to the general public.

Many materials used in construction operations such as oil, chemicals, cement, lime, cleaning materials and paint have the potential to cause serious pollution. All fuel oil and chemical storage must be sited on an impervious base with a bund and be secured. The base and bund walls must be impermeable to the material stored and of an adequate capacity. Leaking or empty oil drums must be removed from the site immediately and disposed of via a licensed waste disposal contractor. The contents of any tank are to be clearly marked on the tank, and a notice displayed requiring that valves and trigger guns to be locked when not in use.

Loading and unloading of plant and materials shall take place only within the boundaries of the construction site.

## **Managing Impacts of Construction Activity and mitigation measures under Air Quality and Emissions Mitigation Guidance for Developers 2019**

Based on the assessment set out from the Air Quality and Emissions Mitigation Guidance for Developers 2019 and the site activity impact identified as Medium the below are the necessary measure to adhere to: -

### **General measures**

1. Develop and implement a stakeholder communications plan that includes community engagement before work commences on-site.

2. Display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary. This may be the environment manager/engineer or the site manager
3. Display the head or regional office contact information
4. Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken. Make the log available to LPA if required.
5. Record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.
6. Undertake daily on-site and off-site inspection, where receptors (including roads) are nearby, to monitor dust, record inspection results, and make the log available to the local authority when asked. This should include regular dust soiling checks of surfaces such as street furniture, cars and window sills within 100m of site boundary, with cleaning to be provided if necessary.
7. Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.
8. Plan site layout so that machinery and dust causing activities are located away from receptors, as far as is possible.
9. Erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
10. Fully enclose site or specific operations where there is a high potential for dust production and the site is active for an extensive period.
11. Avoid site runoff of water or mud.
12. Keep site fencing, barriers and scaffolding clean using wet methods.
13. Remove materials that have a potential to produce dust from site as soon as possible, unless being re-used on site. If they are being re-used on-site this should be covered.
14. Cover, seed or fence stockpiles to prevent wind whipping.
15. Ensure all NRMM meet the required emission standards

NRMM emissions are regulated by European Directive (EU 97/68/EC) as amended and enforced through the Road Mobile Machinery (Emission of Gaseous and Particulate Pollutants) Regulation 1999 as amended. A tightening of emissions is required through a progressive staged implementation (Stages 1 – V) by 2020. NRMM Control The NRMM standards apply to machinery of net power between 37kW and 560kW of variable and constant speed engines for NOx and Particulate Matter. These are: • Sites classified as MEDIUM development are required to meet Stage IIA of the Directive as a minimum; • Sites classified as LARGE will meet Stage IIB.

From 2020: Any construction/demolition site using NRMM will meet Stage IIB of the Directive

16. Ensure all vehicles switch off engines when stationary - no idling vehicles
17. Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
18. Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
19. Ensure an adequate water supply on the site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
20. Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
21. Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

22. Avoid bonfires and burning of waste materials.

### **Demolition measures**

1. Soft strip inside buildings before demolition (retaining walls and windows in the rest of the building where possible, to provide a screen against dust).
2. Ensure effective water suppression is used during demolition operations. Hand held sprays are more effective than hoses attached to equipment as the water can be directed to where it is needed. In addition high volume water suppression systems, manually controlled, can produce fine water droplets that effectively bring the dust particles to the ground.
3. Avoid explosive blasting, using appropriate manual or mechanical alternatives.
4. Bag and remove any biological debris or damp down such material before demolition.

### **Construction activity measures**

1. All contractors and sub-contractors to be made aware of and sign-up to the dust management scheme.
2. Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
3. Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
4. For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

### **Site Traffic measures**

1. Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper being continuously in use.
2. Ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport.
3. Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
4. Record all inspections of haul routes and any subsequent action in a site log book.
5. Install hard surfaced haul routes, which are regularly damped down with fixed or mobile sprinkler systems, or mobile water bowsers and regularly cleaned.
6. Implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site where reasonably practicable).

## **3.0 Deployment**

The Developer will ensure that all persons working on site are provided with sufficient training, supervision and instruction to fulfil this requirement.

The Site Manager shall ensure that the public is kept informed of operations that may have an effect upon them. This may involve letter drops and meetings to keep local



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residents up to date with progress with the scheme and any new operations that are to be carried out. The Site Manager will provide details of contacts within the project team for the public to contact should any issues arise.